

A photographing lens unit, a photographing apparatus, and a photographing system are capable of always reproducing good stereoscopic images. The information regarding the focal length of a photographing optical system, the information regarding a base line length, which is the interval between the incident optical axes of a first photographing optical axis and a second photographing optical axis for left eye and right eye, respectively, and the information regarding the angle of convergence, which is the angle formed by the incident optical axes of the first photographing optical axis and the second photographing optical axis, are transmitted from a controller of the photographing lens unit to a camera main unit in the form of digital values. In the camera main unit, the foregoing information and the information regarding whether the odd/even field of an input picture signal corresponds to a picture signal for left eye or right eye are recorded to a recording medium in the form of digital values, together with picture signals or speech signals.